

NEOLENTIPORUS (BASIDIOMYCETES, POLYPORACEAE) IN EUROPE

Annarosa BERNICCHIA* and Leif RYVARDEN**

* Istituto Patologia Vegetale,
Universita degli Studi di Bologna,
Via F. Re 8, I-40126 Bologna, Italy.

** Department of Botany,
University of Oslo,
P.O. Box 1045 Blindern,
N-0316 Oslo, Norway.

ABSTRACT: *Neolentiporus* Rajchenberg is reported from Europe based on *Antrodia squamosella* Bernicchia & Ryv. from Italy. The genus is characterized by a laterally stipitate basidiocarp, dimitic hyphal system and a brown rot.

KEY WORDS: *Neolentiporus*, *Polyporaceae*, brown rot.

RÉSUMÉ: L'aire de répartition du genre *Neolentiporus* Rajchenberg est élargie à l'Europe, sur la base de récoltes italiennes de *Antrodia squamosella* Bernicchia & Ryv. Le genre est caractérisé par des basidiocarpes latéralement stipités, un système d'hyphes dimitiques et une pourriture brune.

MOTS-CLEFS: *Neolentiporus*, *Polyporaceae*, pourriture brune.

INTRODUCTION

Antrodia squamosella Bernicchia & Ryv. was recently described (Bernicchia & Ryvarden 1996 with colour pictures) based on collections from Sardinia in Italy. Later the type locality has been visited again and more collections have been done confirming the stipitate habitat of the basidiocarps. This has made us reconsider its taxonomic status, especially since Rajchenberg (1995) recently described the genus *Neolentiporus* Rajchenb. based on *Polyporus maculatissimus* Lloyd as type species.

Polyporus maculatissimus is macroscopically rather similar to *Antrodia squamosella* sharing the same scaly to squamulose pileus surface, fairly large pores (although smaller in *A. squamosella* than in *P. maculatissimus*), a lateral stipe, a dimitic hyphal system, fairly large cylindric and hyaline basidiospores and a brown rot. Thus it seems clear that the two species should be placed in the same genus.

P. maculatissimus is restricted to *Nothofagus* and *Eucalyptus* and is known from Tasmania, Australia and Argentine, while *A. squamosella* is known only from burnt *Juniperus* in Italy and from *Juniperus* in the South of France (Rivoire, pers. comm.), thus with a quite different ecology and distribution.

However, more important, the cystidia (see drawing in Bernicchia & Ryvarden 1996: 7) present in the hymenium of *A. squamosella* are absent from *P. maculatissimus*. Further, the basidiospores of *A. squamosella* are slightly, but distinctly navicular and wider than the cylindrical and narrower basidiospores of *P. maculatissimus*. Thus, it is evident that *A. squamosella* represents a species of its own and the following combination is proposed: *Neolentiporus squamosellus* (Bernicchia & Ryv.) Bernicchia & Ryv. Basionym: *Antrodia squamosella* Bernicchia & Ryv. Mycol. Helvetica 8: 4, 1996.

The very restricted distribution of *N. squamosellus* in Europe, a continent with a over 200 years tradition of collecting polypores, clearly indicated that it must be regarded as a relict from times when it had a much wider distribution than today. In this connection it may be worthwhile to mention that the boreal species *Piloporia sajanensis* (Parmasto) Niemelä recently was reported from *Juniperus* in Sardinia, very far from the closest localities in Sweden and Finland (Bernicchia & Ryvarden, 1997).

It may be that the high mountains of the Mediterranean have acted as a refugium for several species that have been able to follow the vegetation as it has been forced up and down the mountains according the changing climates during the many ice ages the last million years. During the last 10 000 years human activities have completely changed the vegetation of lowland southern and central Europe, especially through destruction of many forest ecosystems. We must assume that a fairly high number of wood-inhabiting fungi were exterminated during this process and that some species just barely survive in small specialized and/or isolated localities.

In this connection it may be worthwhile to mention that a new species of *Echinodontium* recently was discovered in Sardinia (Bernicchia & Piga, 1998). This genus, which previously was known only from East Asia and North America, may be another example of the pattern outlined above.

That these three species all occur on *Juniperus* in Italy may of course be a coincidence, but may as well be a hint that they all flourished and had a wider distribution in times before gymnosperms of *Pinaceae* and angiosperms dominated the vegetation of Europe. Species of the older gymnosperms families like *Taxaceae* and *Cupressaceae* had at that times probably a much more prominent role in the forest ecosystems than today.

Many polypores restricted to larger species of *Juniperus* follows the host genus wherever it occurs. Illustrating examples are *Pyrofomes demidoffi* (Lev.) Kotlaba & Pouzar, *Antrodia juniperina* (Muir.) Niemelä & Ryv. and *Diplomitoporus rimosus* (Murr.) Gilbn. & Ryv. which all occur in western USA, on the high mountains of Central Africa, Central Asia and a few scattered localities in East Europe. This disjunct distribution of such distinct species indicate a long evolutionary history through changing climates and this may also be the case with *Neolentiporus squamosellus*.

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